## What is Claimed:

- 1. A method of contraception, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of from 18 to 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu$ g levonorgestrel, and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of from 1 to 7 daily dosage units of a daily dose of from about 2 to 50 mg of an antiprogestin of the formula:

$$\mathbb{R}^3$$
 $\mathbb{R}^2$ 
 $\mathbb{R}^1$ 
 $\mathbb{R}^1$ 

wherein:

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR5R6;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

or  $R^4$  and  $R^5$  are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>3</sup> is selected from the group consisting of (i) and (ii):

(i) a substituted benzene ring having the substituents X, Y and Z and of the formula:

X is selected from the group consisting of halogen, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkoxy, substituted C<sub>1</sub> to C<sub>3</sub> thioalkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, COR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{C}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

Y and Z are independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy; and

(ii) a five or six membered ring having it its backbone 1, 2, or 3 heteroatoms selected from the group consisting of O S, SO, SO<sub>2</sub> and NR<sup>7</sup> and having

one or two independent substituents selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>;

 $R^D$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^E$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;  $R^7$  is H or  $C_1$  to  $C_3$  alkyl;

or a pharmaceutically acceptable salt thereof; and

- c) optionally, an orally and pharmaceutically acceptable placebo for each remaining day of the 28 consecutive days.
- 2. The method according to Claim 1, wherein the progestational agent is levonorgestrel and wherein:

R<sup>1</sup> is H, OH, NH<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, or COR<sup>A</sup>;

 $R^A$  is H,  $C_1$  to  $C_3$  alkyl, or  $C_1$  to  $C_3$  alkoxy;

R<sup>2</sup> is H, halogen, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, or substituted C<sub>1</sub> to C<sub>3</sub> alkyl;

R<sup>3</sup> is the substituted benzene ring having the substituents X and Y and of the structure:

wherein:

X is selected from the group consisting of halogen, CN,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl,  $NO_2$ ,  $C_1$  to  $C_3$  perfluoroalkyl, 5 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, and  $C_1$  to  $C_3$  thioalkoxy;

Y is on the 4' or 5' position and is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy.

3. The method according to Claim 1, wherein the progestational agent is levonorgestrel and wherein:

R<sup>3</sup> is the five membered ring of the structure:

wherein:

U is O, S, or NR<sup>7</sup>;

 $\label{eq:X} \textbf{X'} \text{ is selected from the group consisting of halogen, CN, NO}_2, \, C_1 \text{ to } C_3$  alkyl and  $C_1$  to  $C_3$  alkoxy;

Y' is H or  $C_1$  to  $C_3$  alkyl.

4. The method according to Claim 1, wherein the progestational agent is levonorgestrel and wherein:

R<sup>3</sup> is the six membered ring of the structure:

wherein:

 $X^{1}$  is N or  $CX^{2}$ ;

X<sup>2</sup> is halogen, CN or NO<sub>2</sub>.

5. The method according to Claim 1, wherein the progestational agent is levonorgestrel and the antiprogestin compound has the structure:

$$\mathbb{R}^3$$

wherein:

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^4$  is H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, or substituted aryl, wherein said aryl is benzyl; and

R<sup>3</sup> is the substituted benzene ring having the structure:

wherein:

X is selected from the group consisting of halogen, CN,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl,  $NO_2$ ,  $C_1$  to  $C_3$  perfluoroalkyl, and  $C_1$  to  $C_3$  thioalkoxy;

Y is on the 4' or 5' position and is selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy.

- 6. The method according to Claim 1 wherein the antiprogestin is 1-Benzyl-6-(3-chloro-phenyl)-1,3-dihydro-benzoimidazol-2-one or a pharmaceutically acceptable salt thereof.
- 7. The method according to Claim 1 wherein the antiprogestin is 1-Benzyl-6-(3-nitro-phenyl)-1,3-dihydro-benzoimidazol-2-one or a pharmaceutically acceptable salt thereof.
- 8. The method according to Claim 1, wherein the antiprogestin is 1-Methyl-6-(3-nitro-phenyl)-1, 3-dihydro-benzoimidazol-2-one or a pharmaceutically acceptable salt thereof.
- 9. The method according to Claim 1 wherein the antiprogestin is 6-(3-chloro-phenyl)-1-methyl-1,3-dihydro-benzoimidazol-2-one or a pharmaceutically acceptable salt thereof.
- 10. The method according to Claim 1 wherein the antiprogestin is 5-(3-Nitro-phenyl)-1,3-dihydro-benzoimidazol-2-one or a pharmaceutically acceptable salt thereof.
- 11. The method according to Claim 1 wherein the antiprogestin is 6-(3-Nitro-phenyl)-3H-benzooxazol-2-one or a pharmaceutically acceptable salt thereof.
- 12. The method according to Claim 1 wherein the antiprogestin is 6-(3-Nitro-phenyl)-3H-benzothiazol-2-one or a pharmaceutically acceptable salt thereof.
- 13. The method according to Claim 1 wherein the antiprogestin is 6-(3-Chloro-phenyl)-3H-benzothiazol-2-one or a pharmaceutically acceptable salt thereof.

- 14. The method according to Claim 1 wherein the antiprogestin is 7-(3-Nitro-phenyl)-4H-benzo[1,4]thiazin-3-one or a pharmaceutically acceptable salt thereof.
- 15. The method according to Claim 1 wherein the antiprogestin is 2-Ethyl-7-(3-nitro-phenyl)-4H-benzo[1,4]thiazin-3-one or a pharmaceutically acceptable salt thereof.
- 16. The method according to Claim 1 wherein the antiprogestin is 8-(3-Chloro-phenyl-1,2,3,3a-tetrahydro-5H-pyrrolo[1,2-a]quinoxalin-4-one or a pharmaceutically acceptable salt thereof.
- 17. The method according to Claim 1 wherein the antiprogestin is 6-(3-Chloro-phenyl)-4-methyl-3,4-dihydro-1H-quinoxalin-4-one or a pharmaceutically acceptable salt thereof.
- 18. The method according to Claim 1 wherein the antiprogestin is 5-(3, 4-Dihydro-4-methyl-2-oxo-quinoxalin-6-yl) thiophene-3-carbonitrile or a pharmaceutically acceptable salt thereof.
- 19. The method according to Claim 1 wherein the antiprogestin is 4-(*n*-Butyl)-6-(3-chloro-phenyl)-3,4-dihydro-1H quinoxalin-2-one or a pharmaceutically acceptable salt thereof.
- 20. The method according to Claim 1 wherein the antiprogestin is 6-(3-Cyano-5-fluorophenyl)-4-isopropyl-3,4-dihydro-1H-quinoxalin-2-one or a pharmaceutically acceptable salt thereof.

- 21. The method according to Claim 1 wherein the antiprogestin is 6-(3-Chloro-4-fluoro-phenyl)-4-isopropyl-3,4-dihydro-1H-quinoxalin-2-one or a pharmaceutically acceptable salt thereof.
- 22. The method according to Claim 1 wherein the antiprogestin is 6-(3-Chloro-phenyl)-4-isopropyl-3,4-dihydro-1H-quinoxalin-2-one or a pharmaceutically acceptable salt thereof.
- 23. The method according to Claim 1 wherein the progestational agent is selected from the group consisting of levonorgestrel, norgestrel, desogestrel, 3-ketodesogestrel, norethindrone, gestodene, norethindrone acetate, norgestimate, osaterone, cyproterone acetate, trimegestone, dienogest, drospirenone, nomegestrol, and (17-deacetyl)norgestimate.
- 24. The method of contraception according to Claim 1, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 100  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of 3 daily dosage units of the antiprogestin of formula I at a daily dose of from about 2 to 50 mg; and
- c) optionally, a third phase of 4 daily dosage units of an orally and pharmaceutically acceptable placebo.

- 25. A method of contraception, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of from 18 to 21 daily dosage units containing a progestational agent at a daily dose equal in progestational activity to from about 35 to about 150  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of from 1 to 7 daily dosage units, each daily dosage unit containing an antiprogestin of formula I at a concentration of from 2 to 50 mg and ethinyl estradiol at a concentration of from about 10 to about 35  $\mu$ g, wherein formula I is:

$$R^3$$
 $R^2$ 
 $R^2$ 
 $R^1$ 

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR<sup>5</sup>R<sup>6</sup>;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

or R4 and R5 are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>3</sup> is selected from the group consisting of (i) and (ii):

(i) a substituted benzene ring having the substituents X, Y and Z of the formula:

X is selected from the group consisting of halogen, CN,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  thioalkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, substituted  $C_1$  to  $C_3$  aminoalkyl,  $NO_2$ ,  $C_1$  to  $C_3$  perfluoroalkyl, 5 or 6 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms,  $COR^B$ ,  $OCOR^B$ , and  $NR^CCOR^B$ ;

 $R^B$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{C}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

Y and Z are independent substituents selected from the group consisting of H, halogen, CN, NO<sub>2</sub>,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy; and

(ii) a five or six membered ring having it its backbone 1, 2, or 3 heteroatoms selected from the group consisting of O S, SO, SO<sub>2</sub> and NR<sup>7</sup> and having

one or two independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkyl,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl,  $COR^D$ , and  $NR^ECOR^D$ ;  $R^D$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,

 $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^E$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;  $R^7$  is H or  $C_1$  to  $C_3$  alkyl;

or a pharmaceutically acceptable salt thereof; and

- c) optionally, a third phase of daily dosage units of an orally and pharmaceutically acceptable placebo, the total of the daily dosage units being 28.
- 26. The method of contraception according to Claim 25, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of 21 daily dosage units, each daily dosage unit containing a progestational agent at a daily dose equal in progestational activity to about 35 to about 100  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of 3 daily dosage units, each daily dosage unit containing the antiprogestin of formula I at a concentration of from 2 to 50 mg and ethinyl estradiol at a concentration of from about 10 to about 35  $\mu$ g; and
- c) optionally, a third phase of 4 daily dosage units of an orally and pharmaceutically acceptable placebo.
- 27. A pharmaceutically useful kit adapted for daily oral administration, which comprises:
- a) a first phase of from 14 to 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150 µg levonorgestrel;
- b) a second phase of from 1 to 11 daily dosage units of an antiprogestin compound of formula I:

$$\mathbb{R}^3$$
 $\mathbb{R}^2$ 
 $\mathbb{R}^1$ 

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR5R6;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

or R<sup>4</sup> and R<sup>5</sup> are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>3</sup> is selected from the group consisting of (i) and (ii):

(i) a substituted benzene ring having the substituents X, Y and Z of the formula:

X is selected from the group consisting of halogen, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkoxy, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, COR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{C}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

Y and Z are independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy; and

(ii) a five or six membered ring having it its backbone 1, 2, or 3 heteroatoms selected from the group consisting of O S, SO,  $SO_2$  and  $NR^7$  and having one or two independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkyl,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl,  $COR^D$ , and  $NR^ECOR^D$ ;

 $R^D$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^E$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

 $R^7$  is H or  $C_1$  to  $C_3$  alkyl;

or a pharmaceutically acceptable salt thereof

wherein each daily dosage unit contains the antiprogestin compound at a daily dosage of from about 2 to 50 mg; and

- c) a third phase of of an orally and pharmaceutically acceptable placebo; wherein the total number of the daily dosage units in the first phase, second phase and third phase equals 28.
- 28. The pharmaceutically useful kit according to Claim 27, which comprises:
- a) a first phase of 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150 μg levonorgestrel;
- b) a second phase of 3 daily dosage units of the antiprogestin compound of formula I, each daily dosage unit containing the antiprogestin compound at a daily dosage of from about 2 to 50 mg; and
- c) a third phase of 4 daily dosage units of an orally and pharmaceutically acceptable placebo.
- 29. A pharmaceutically useful kit adapted for daily oral administration, which comprises:
- a) a first phase of from 18 to 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of from 1 to 7 daily dosage units of an antiprogestin of formula I at a daily dose of from about 2 to 50 mg, wherein formula I is:

$$\mathbb{R}^3$$
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR<sup>5</sup>R<sup>6</sup>;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

or R4 and R5 are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>3</sup> is selected from the group consisting of (i) and (ii):

(i) a substituted benzene ring having the substituents X, Y and Z of the formula:

X is selected from the group consisting of halogen, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkoxy, substituted C<sub>1</sub> to C<sub>3</sub> thioalkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, COR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{C}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;

Y and Z are independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy; and

(ii) a five or six membered ring having it its backbone 1, 2, or 3 heteroatoms selected from the group consisting of O S, SO, SO<sub>2</sub> and NR<sup>7</sup> and having one or two independent substituents selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>;

 $R^D$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{E}$  is H,  $C_{1}$  to  $C_{3}$  alkyl, or substituted  $C_{1}$  to  $C_{3}$  alkyl;  $R^{7}$  is H or  $C_{1}$  to  $C_{3}$  alkyl;

or a pharmaceutically acceptable salt thereof; and

c) a third phase of from 0 to 9 daily dosage units of an orally and pharmaceutically acceptable placebo;

wherein the total number of the daily dosage units in the first phase, second phase and third phase equals 28.

- 30. The pharmaceutically useful kit according to Claim 29, which comprises:
- a) a first phase of 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of 3 daily dosage units of the antiprogestin of formula I administered at a daily dose of from about 2 to 50 mg; and

- c) a third phase of 4 daily dosage units of an orally and pharmaceutically acceptable placebo.
- 31. A pharmaceutically useful kit adapted for daily oral administration, which comprises:
- a) a first phase of from 18 to 21 daily dosage units, each daily dosage unit comprising a progestational agent at a daily dose equal in progestational activity to from about 35 to about 150  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of from 1 to 7 daily dosage units, each daily dosage unit containing an antiprogestin of formula I at a concentration of from 2 to 50 mg; and ethinyl estradiol at a concentration of from about 10 to about 35  $\mu$ g, wherein formula I is:

$$\mathbb{R}^3$$
 $\mathbb{R}^2$ 
 $\mathbb{R}^1$ 

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR<sup>5</sup>R<sup>6</sup>;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

or R<sup>4</sup> and R<sup>5</sup> are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>6</sub> alkyl, substituted C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, substituted C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl, and substituted C<sub>1</sub> to C<sub>6</sub> aminoalkyl;

R<sup>3</sup> is selected from the group consisting of (i) and (ii):

(i) a substituted benzene ring having the substituents X, Y and Z of the formula:

X is selected from the group consisting of halogen, CN, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, substituted C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> thioalkoxy, substituted C<sub>1</sub> to C<sub>3</sub> thioalkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, substituted C<sub>1</sub> to C<sub>3</sub> aminoalkyl, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> perfluoroalkyl, 5 or 6 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, COR<sup>B</sup>, OCOR<sup>B</sup>, and NR<sup>C</sup>COR<sup>B</sup>;

 $R^B$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{C}$  is H,  $C_{1}$  to  $C_{3}$  alkyl, or substituted  $C_{1}$  to  $C_{3}$  alkyl;

Y and Z are independent substituents selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl, and  $C_1$  to  $C_3$  thioalkoxy; and

(ii) a five or six membered ring having it its backbone 1, 2, or 3 heteroatoms selected from the group consisting of O S, SO, SO<sub>2</sub> and NR<sup>7</sup> and having one or two independent substituents selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>3</sub> aminoalkyl, COR<sup>D</sup>, and NR<sup>E</sup>COR<sup>D</sup>; R<sup>D</sup> is H, C<sub>1</sub> to C<sub>3</sub> alkyl, substituted C<sub>1</sub> to C<sub>3</sub> alkyl, aryl, substituted aryl,

 $R^3$  is H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, or substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^{E}$  is H,  $C_1$  to  $C_3$  alkyl, or substituted  $C_1$  to  $C_3$  alkyl;  $R^7$  is H or  $C_1$  to  $C_3$  alkyl;

or a pharmaceutically acceptable salt thereof; and

c) a third phase of from 0 to 9 daily dosage units of an orally and pharmaceutically acceptable placebo;

wherein the total number of the daily dosage units in the first phase, second phase and third phase equals 28.

- 32. The pharmaceutically useful kit according to Claim 31, which comprises:
- a) a first phase of 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu$ g levonorgestrel and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of 3 daily dosage units, each daily dosage unit containing the antiprogestin of formula I at a concentration of from 2 to 50 mg and ethinyl estradiol at a concentration of from about 10 to about 35  $\mu$ g; and
- c) a third phase of 4 daily dosage units of an orally and pharmaceutically acceptable placebo.

- 33. A method of contraception, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of from 18 to 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu g$  levonorgestrel, and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu g$ ;
- b) a second phase of from 1 to 7 daily dosage units of a daily dose of from about 2 to 50 mg of an antiprogestin of the formula:

$$R^3$$
 $R^2$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 
 $R^3$ 

 $R^1$  is H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl, or  $COR^A$ ;

 $R^A$  is H,  $C_1$  to  $C_4$  alkyl, or  $C_1$  to  $C_4$  alkoxy;

R<sup>2</sup> is H, halogen, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl, or substituted C<sub>1</sub> to C<sub>3</sub> alkyl;

 $R^3$  is the substituted benzene ring having the substituents X and Y:

wherein:

X is selected from the group consisting of halogen, CN,  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  alkyl,  $NO_2$ ,  $C_1$  to  $C_3$  perfluoroalkyl, 5 membered heterocyclic ring having in its backbone 1 to 3 heteroatoms, and  $C_1$  to  $C_3$  thioalkoxy;

Y is on the 4' or 5' position and is selected from the group consisting of H, halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkoxy, C<sub>1</sub> to C<sub>4</sub> alkyl, and C<sub>1</sub> to C<sub>3</sub> thioalkoxy; or a pharmaceutically acceptable salt thereof; and

- c) optionally, an orally and pharmaceutically acceptable placebo for each remaining day of the 28 consecutive days.
- 34. A method of contraception, which comprises administering to a female of child bearing age over a period of 28 consecutive days:
- a) a first phase of from 18 to 21 daily dosage units of a progestational agent equal in progestational activity to about 35 to about 150  $\mu$ g levonorgestrel, and ethinyl estradiol at a daily dose range of from about 10 to about 35  $\mu$ g;
- b) a second phase of from 1 to 7 daily dosage units of a daily dose of from about 2 to 50 mg of an antiprogestin of the formula:

$$\mathbb{R}^3$$
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 
 $\mathbb{R}^3$ 

wherein:

A is O, S, or NR<sup>4</sup>;

B is a bond between A and C=O, or the moiety CR<sup>5</sup>R<sup>6</sup>;

 $R^4$ ,  $R^5$ , and  $R^6$  are independently selected from the group consisting of H,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_2$  to  $C_6$  alkenyl, substituted  $C_2$  to  $C_6$  alkenyl,  $C_2$  to  $C_6$  alkynyl, substituted  $C_2$  to  $C_6$  alkynyl,  $C_3$  to  $C_8$  cycloalkyl, substituted  $C_3$  to  $C_8$  cycloalkyl, aryl, substituted aryl, heterocyclic, and substituted heterocyclic;

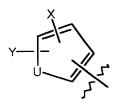
or R<sup>4</sup> and R<sup>5</sup> are fused to form a 5 to 7 membered ring;

 $R^1$  is selected from the group consisting of H, OH, NH<sub>2</sub>,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_3$  to  $C_6$  alkenyl, substituted  $C_3$  to  $C_6$  alkenyl, alkynyl, substituted alkynyl, and  $COR^A$ ;

 $R^A$  is selected from the group consisting of H,  $C_1$  to  $C_3$  alkyl, substituted  $C_1$  to  $C_3$  alkyl, aryl, substituted aryl,  $C_1$  to  $C_3$  alkoxy, substituted  $C_1$  to  $C_3$  alkoxy,  $C_1$  to  $C_3$  aminoalkyl, and substituted  $C_1$  to  $C_3$  aminoalkyl;

 $R^2$  is selected from the group consisting of H, halogen, CN,  $NO_2$ ,  $C_1$  to  $C_6$  alkyl, substituted  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  alkoxy, substituted  $C_1$  to  $C_6$  alkoxy,  $C_1$  to  $C_6$  aminoalkyl, and substituted  $C_1$  to  $C_6$  aminoalkyl;

R<sup>3</sup> is the five membered ring of the structure:



wherein:

U is O, S, or NR<sup>7</sup>;

X' is selected from the group consisting of halogen, CN, NO<sub>2</sub>, C<sub>1</sub> to C<sub>3</sub> alkyl and C<sub>1</sub> to C<sub>3</sub> alkoxy;

Y' is H or C<sub>1</sub> to C<sub>4</sub> alkyl;

or a pharmaceutically acceptable salt thereof; and

c) optionally, an orally and pharmaceutically acceptable placebo for each remaining day of the 28 consecutive days.